ACC.11
60th Annual Scientific Session & Expo

E1001
JACC April 5, 2011
Volume 57, Issue 14

## MYOCARDIAL ISCHEMIA AND INFARCTION

# A NOVEL PATHWAY TO PROVIDE THERAPEUTIC HYPOTHERMIA TO SURVIVORS OF OUT-OF-HOSPITAL CARDIAC ARREST LEADS TO A REMARKABLE 43% SURVIVAL WITH AN EXCELLENT NEUROLOGIC OUTCOME IN VT/VF BUT FAILS TO IMPROVE OUTCOME FOR IN-HOSPITAL CARDIAC ARREST OR ASYSTOLE /PEA ARREST.

ACC Poster Contributions
Ernest N. Morial Convention Center, Hall F
Sunday, April 03, 2011, 3:30 p.m.-4:45 p.m.

Session Title: Cardiopulmonary Resuscitation/Emergency Cardiac
Abstract Category: 6. Cardiopulmonary Resuscitation/Emergency Cardiac Care/Shock
Session-Poster Board Number: 1039-358

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**Background:** There is a wide variation in the reported outcomes of survivors of out of hospital cardiac arrest (OHCA). Data from the American Heart Association Statistics Committee in 2009 reported that of OHCA patients, only 7.9% survive to hospital discharge. Two landmark studies in 2002 demonstrated that in OHCA with initial rhythm of ventricular fibrillation (VF) or ventricular tachycardia (VT) the use of therapeutic hypothermia after cardiac arrest decreased mortality and improved neurologic outcome. Outcomes for in-hospital arrest and for arrest with initial rhythm of PEA/asystole are unknown.

**Methods:** In 2008, our multidisciplinary team developed a novel pathway for the management of survivors of OHCA. Patients meeting inclusion criteria were treated with therapeutic hypothermia for 24 hours. Due to its initial success we extended our inclusion criteria to selected patients suffering in- hospital arrest and to patients with a documented rhythm of PEA/asystole. We report our outcomes of survival with good neurologic status.

**Results:** From March 2008 until October 2010, 55 patients (ages 22-91, mean age of 64) were enrolled in our novel pathway. 44 patients (80%) had an initial rhythm of VF or sustained VT and return of spontaneous circulation in less than 30 minutes: 43% of these patients survived to hospital discharge with excellent neurological outcome. On the other hand, 11 patients (20%) presented with PEA/asystole or suffered in-hospital cardiac arrest; none of these patients survived to hospital discharge.

**Conclusions:** A novel pathway created by a multidisciplinary team was successful in implementing therapeutic hypothermia and achieved an improved hospital survival with good neurologic outcome among patients with OHCA due to VT/VF. However, no benefit was achieved when this program was extended to in-hospital arrest or rhythms of PEA and asystole.